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October 9, 2002

27-19071.001

BROWN AND
CALDWELL

Mr. Don Webster
USEPA Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

RE: Corrective Measures Study Work Plan
Grenada Manufacturing, LLC
Grenada, Mississippi

Dear Mr. Webster:

On behalf of Grenada Manufacturing, LLC and ArvinMeritor, Brown and Caldwell is submitting three copies of the revised Corrective Measures Study (CMS) Work Plan for the referenced site. Two copies have also been sent to Mr. Louis Crawford at the Mississippi Department of Environmental Quality.

An initial draft CMS Work Plan was transmitted to you in June 2002. This CMS Work Plan has been revised in response to your comment on the draft work plan to Don Williams at Grenada Manufacturing in an email dated July 12, 2002. Your lone comment addressed monitoring of surface water at the site (i.e., Riverdale Creek). Section 3.1 has been revised in response to this comment. In general, sampling of the groundwater and the surface water to monitor the performance of the interim measure (and eventually the final measures) will be addressed in the Performance Monitoring Plan being prepared as part of final design activities for the permeable reactive barrier. This document will be transmitted to the agencies when it is completed.

In addition to the revisions to this Work Plan due to response to USEPA comments, the Work Plan has been updated to reflect the current status of activities at the site. In specific, Sections 1.3 and 2.2 have been revised to reflect the status of the closure activities associated with the Chrome Plating Line (SWMU 27). Also, Section 2.4 has been updated with information regarding the Wet Well (SWMU 12). Lastly, Sections 2.4 and 3.2 have been modified to reflect the current status of the evaluation of vapor intrusion into indoor air.

As discussed in your letter to Mr. Don Williams at Grenada Manufacturing dated November 26, 2001, this Work Plan addresses the evaluation of corrective measures for both source control and site-wide groundwater. The CMS will identify and evaluate the remaining HSWA-related cleanup activities to recommend a final corrective action remedy for the entire plant.

Mr. Don Webster
October 9, 2002
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Please provide any additional comments regarding this Work Plan to Mr. Don Williams at Grenada Manufacturing. If you should have any questions, please feel free to call me at (615) 250-1241 or contact me by e-mail at dshowers@brwnald.com.

Sincerely,

BROWN AND CALDWELL



Dale R. Showers, P.E.
Project Manager
Design & Solid Waste

cc: Louis Crawford, P.E., MDEQ
John Bozick, ArvinMeritor
Robert Schroder, ArvinMeritor
Don Williams, Grenada Manufacturing, LLC
John Devic, Collins & Alkman
Jeffrey Karp, Swidler Berlin Shereff &, Friedman

**CORRECTIVE MEASURES STUDY
WORK PLAN**

**Grenada Manufacturing Site
Grenada, Mississippi**

prepared for

**ArvinMeritor
Troy, Michigan**

October 2002

27-19071.001

**CORRECTIVE MEASURES STUDY
WORK PLAN
GRENADA MANUFACTURING SITE
GRENADA, MISSISSIPPI**

Prepared for:

**ArvinMeritor
Troy, Michigan**

Prepared by:

**BROWN AND CALDWELL
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(615) 255-2288**

October 2002

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1.0 INTRODUCTION

This document contains the Corrective Measures Study (CMS) Work Plan for the Grenada Manufacturing, LLC facility (Site) located at 635 Highway 332 in Grenada, Mississippi (Figure 1-1). In accordance with the facility's Hazardous and Solid Waste Amendment (HSWA) Permit issued July 31, 1998, the facility is undergoing Resource Conservation and Recovery Act (RCRA) Corrective Action for prior and suspected ongoing releases of hazardous waste, including hazardous constituents from various solid waste management units (SWMUs). To that end, a CMS Work Plan for the Site has been required by the United States Environmental Protection Agency (USEPA) Region IV in its letter to Grenada Manufacturing dated November 26, 2001. According to the letter, the USEPA requests that the CMS Work Plan identify and evaluate the remaining HSWA-related cleanup activities to recommend a final corrective action remedy for the entire Site.

As discussed later in this Work Plan, the Baseline Risk Assessment (BRA) that has been performed for this Site concluded that the Site poses only potential "low-level" threats for all media except for groundwater in the uppermost aquifer. Therefore, the CMS will address Site-wide groundwater contamination, as well as source control and soil contamination as these impact the overall Site-wide groundwater remedy. Appendix A of the HSWA permit identifies SWMUs and Areas of Concern (AOCs) as either requiring a RCRA Facility Investigation (RFI) or requiring confirmatory sampling. For reference purposes, Appendix A of this Work Plan contains a copy of Appendix A from the HSWA permit for the facility. Figure 1-2 identifies these remaining SWMUs and AOCs in relationship to existing Site features. Other SWMUs (i.e., those not shown on Figure 1-2) identified in the HSWA permit were listed as requiring no further action (see Table A.2 of Appendix A for a list of these SWMUs).

The CMS will also consider the Interim Measures (IMs) that have been completed, are ongoing, or are proposed. These IMs will be evaluated as they relate to the overall Site-wide groundwater contamination and the final corrective action remedy for the Site. Figure 1-3 identifies the locations of these IMs in relationship to existing Site features and identified SWMUs and AOCs.

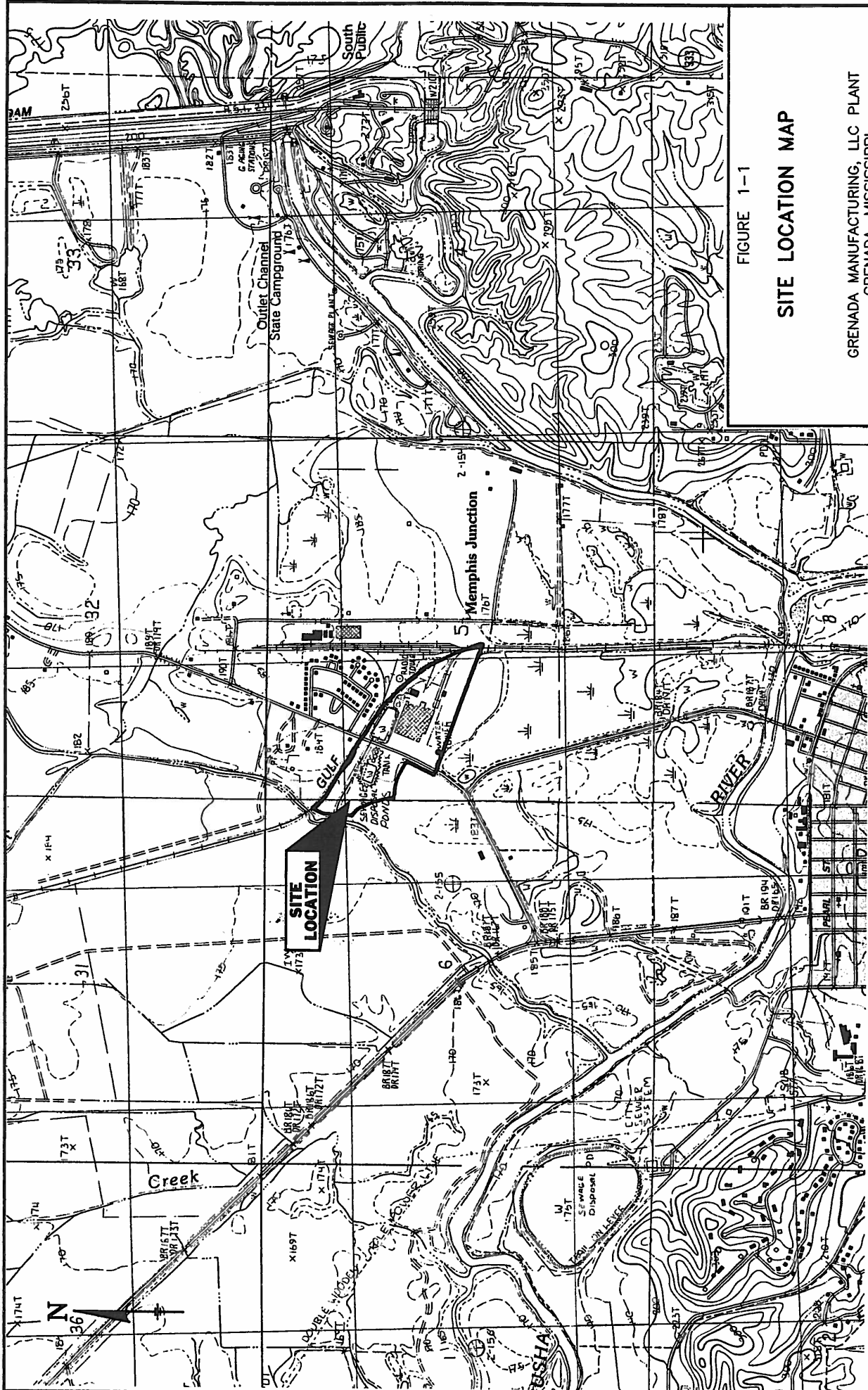


FIGURE 1-1

SITE LOCATION MAP

GRENADA MANUFACTURING, LLC PLANT
GRENADA, MISSISSIPPI

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Modified from U.S.G.S., Grenada, Mississippi
Quadrangle, 1983.



SCALE
FEET

**BROWN AND
CALDWELL** Nashville, Tennessee

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993. WELL LOCATIONS SHOWN ARE APPROXIMATE.

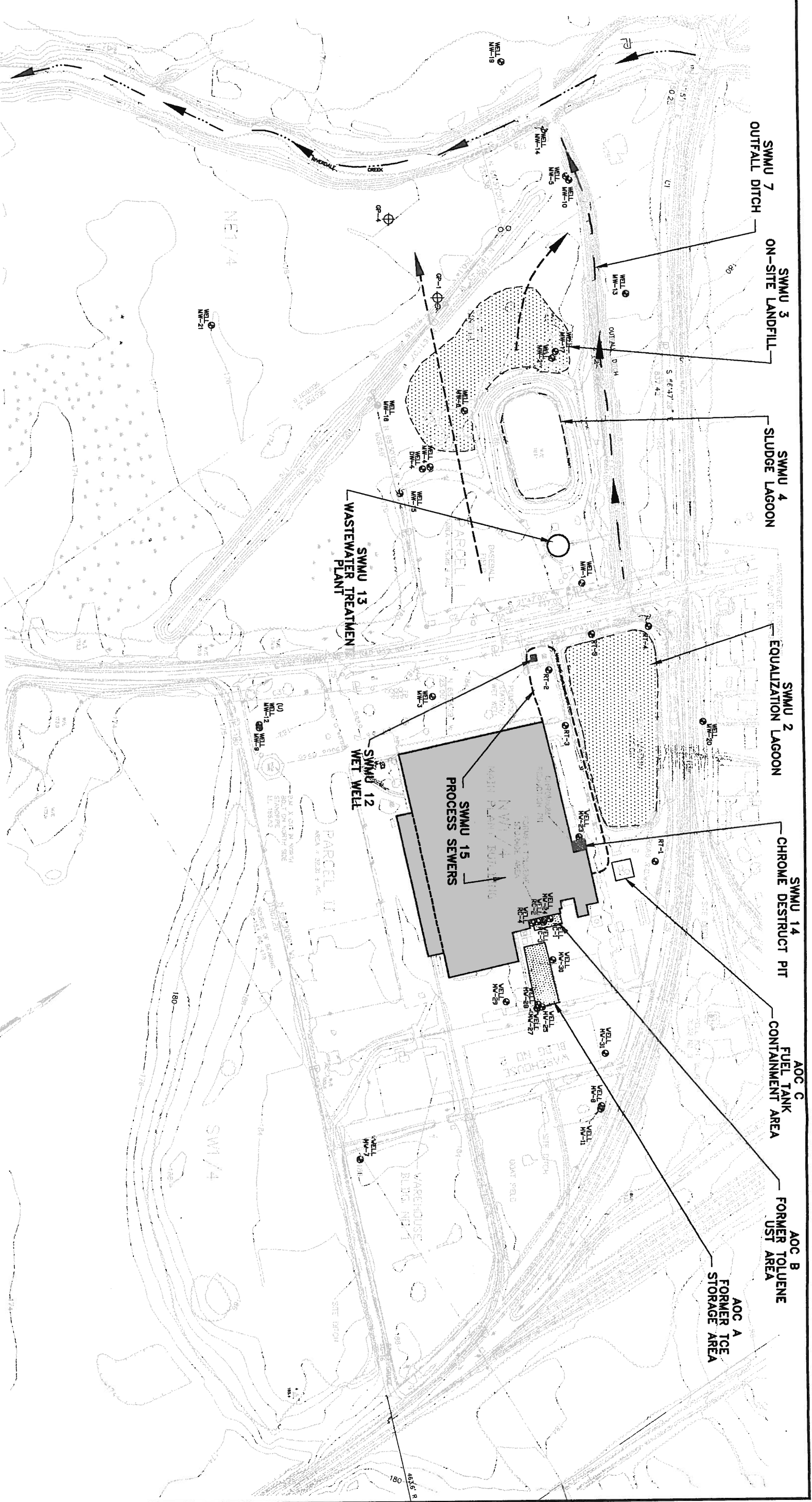


FIGURE 1-2
SITE MAP SHOWING LOCATIONS
OF REMAINING SOLID WASTE
MANAGEMENT UNITS AND AREAS
OF CONCERN

GRENADA MANUFACTURING, LLC PLANT
GRENADA, MISSISSIPPI

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BROWN AND CALDWELL
Nashville, Tennessee

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993. WELL LOCATIONS SHOWN ARE APPROXIMATE.

- LEGEND**
- Monitoring Well
 - Geoprobe Piezometer
 - Groundwater Flow Direction
 - Surface Water Flow Direction

- SWMUs**
- 2-EQUALIZATION LAGOON: CLOSED UNDER MDEQ JURISDICTION 1994
 - 3-ON-SITE LANDFILL: SVE USED TO TREAT SOILS, CLOSED 1994
 - 14-CHROME DESTRUCT PIT: CLEAN CLOSURE COMPLETED 2002

- AOCs**
- A-FORMER TCE STORAGE AREA: DNAPL RECOVERY SINCE 1993
 - B-FORMER TOLUENE UST AREA: LNAPL RECOVERY SINCE 1993

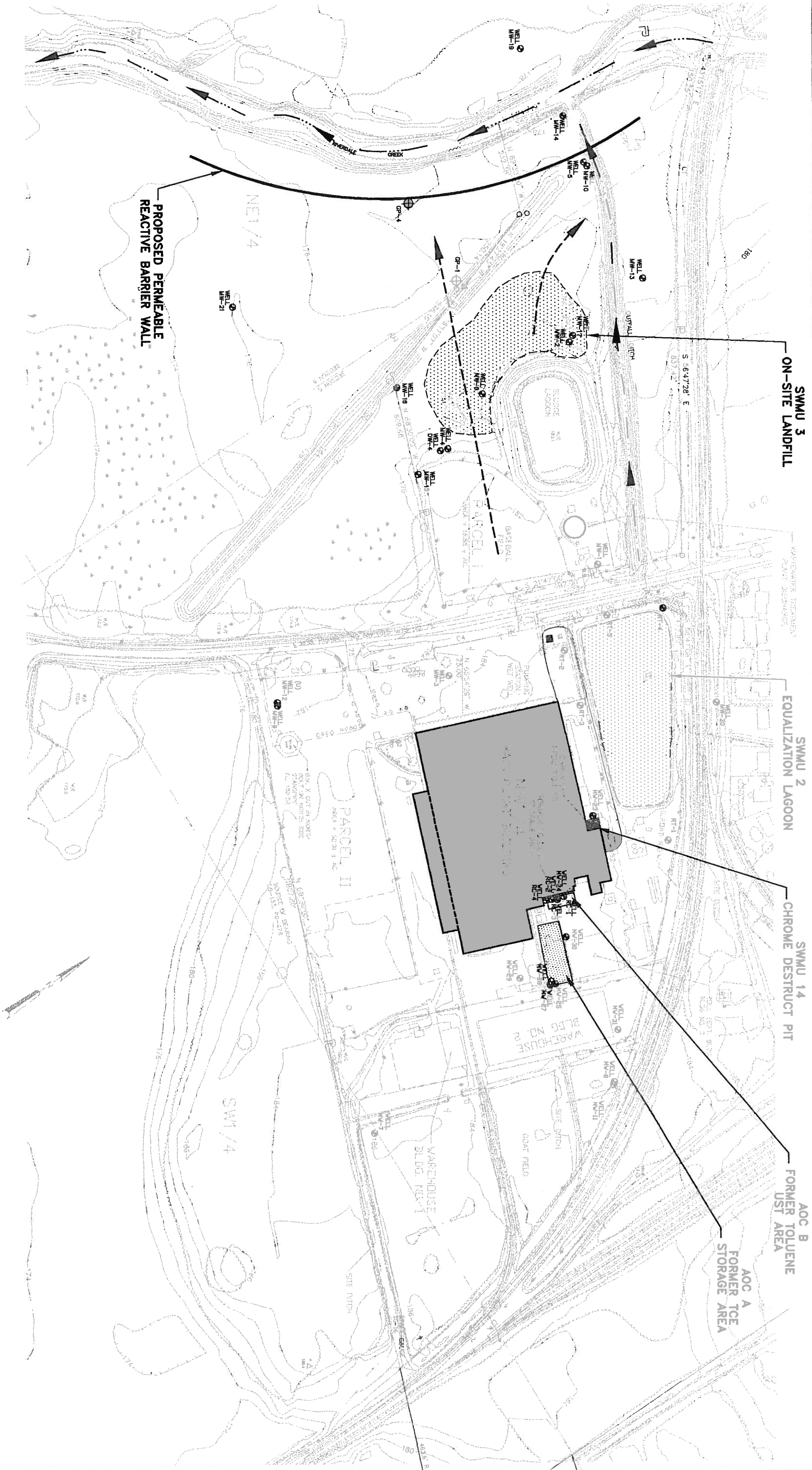


FIGURE 1-3

**SITE MAP SHOWING
LOCATIONS OF INTERIM MEASURES**

GRENADA MANUFACTURING, LLC PLANT
GRENADA, MISSISSIPPI

19071.001

06/02

**BROWN AND
CALDWELL** Nashville, Tennessee

1.1 PURPOSE

Appendix C of the facility HSWA permit presents a list of elements to be included in the CMS Work Plan. The purpose of this CMS Work Plan is as follows:

- to present the objectives of the CMS;
- to present an overview of the process by which corrective measures technologies will be identified and evaluated; and
- to present an implementation plan for the CMS, including a proposed implementation schedule and an outline for the CMS Report.

A brief overview of IMs that have been completed, are ongoing, and are proposed is also presented in this Work Plan.

1.2 DESCRIPTION OF CURRENT SITUATION

Rockwell Automotive North America, now ArvinMeritor, operated a wheel cover manufacturing facility in Grenada, Mississippi from 1966 to 1985 before selling the operations and property to Textron Automotive Company, formerly Randall Textron, who then sold the operations and property to Grenada Manufacturing, LLC in 1999. Grenada Manufacturing, LLC (Permittee) currently operates as a metal stamping facility with production of wheel covers as only a small portion of its total plant production. ArvinMeritor and Textron Automotive Company have conducted a number of environmental investigations at the referenced facility. The most extensive investigative work is reported in the 1994 Remedial Investigation (RI) Report conducted by ECKENFELDER INC., now Brown and Caldwell (BC). The work was performed in response to a Mississippi Department of Environmental Quality (MDEQ) Administrative Order of Consent designed to investigate the on-Site landfill, and was subsequently expanded to include other areas of the Site.

The RI conducted by ECKENFELDER INC. in January 1994 identified the presence of trichloroethylene (TCE) and its degradation products, as well toluene and chromium, in the soil and groundwater at the Site. A Baseline Risk Assessment (BRA) was performed for soil and Site groundwater as part of the Supplemental RI Report prepared by ECKENFELDER INC. in March 1994. The BRA provides an evaluation of the potential threat to human health and the environment from the constituents of interest at the Site. The risk assessment identifies the constituents of interest and, through the exposure and toxicity assessments, characterizes the associated potential risk, assuming no action is taken at the Site. The primary concern with respect to impacted groundwater is the migration of chlorinated ethenes and ethanes to Riverdale Creek. Toluene and chromium are also of concern, but are generally present at much lower concentrations than are the chlorinated volatile organic compounds (VOCs) and do not threaten Riverdale Creek. The results of that investigation are discussed on a Site-wide basis in the RI Report. The SWMUs and AOCs had not yet been determined at the time the report was submitted to the MDEQ.

The BRA results demonstrated that the Site poses only potential "low-level" threats for all media, except for groundwater from the uppermost aquifer if it were used in the future as a drinking water supply. Evaluation of the groundwater risk estimates (particularly ingestion) indicated that the high risk estimates are primarily a function of the relatively high concentrations of the constituents present in the groundwater (e.g., TCE and 1,2-dichloroethene), and also a function of the associated toxicity of the detected constituents (e.g., arsenic and vinyl chloride). The BRA emphasized that there were no known current receptors to Site-impacted groundwater.

The BRA also discussed that the interim action area and the former solvent storage area are considered primary sources of Site-related constituents in soils. However, the risk estimates associated with solid from these areas indicate that exposure to soils does not present high levels of risk. In addition, although there is no likely human exposure to light non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL) which have accumulated near the former solvent storage area, those areas are believed to be a continuing source of constituents to groundwater, as were the soils associated with the interim action area.

The BRA also noted that Riverdale Creek surface water is not believed to be associated with unacceptable risk to human receptors, although constituent plumes of TCE and 1,2-dichloroethene

in groundwater have spread as far west as Riverdale Creek, which may present concern for biota that may be present in the creek. Riverdale Creek receives groundwater discharge and surface water discharge from the Outfall Ditch (SWMU 7).

Subsequent to the submittal of the RI Report, the facility became subject to regulation under RCRA and a RCRA Facility Assessment (RFA) was performed by USEPA's contractor (A.T. Kearney, Inc., 1997) as part of the HSWA permit process for the facility in 1996 and 1997. The RFA report included the results from the Preliminary Review (PR) and Visual Site Inspection (VSI) performed by A.T. Kearney, Inc. The RFA resulted in the identification of 26 SWMUs and 3 AOCs.

On March 2, 1999, USEPA issued a combined RCRA Facility Investigation (RFI)/Confirmatory Sampling (CS) Work Plan call letter. ArvinMeritor and Textron requested a meeting at the Region IV office to review the results of the RI conducted for MDEQ and to identify potential data gaps. During a meeting held in May 1999 among the USEPA Region IV Project Manager and representatives from Textron, ArvinMeritor, and ArvinMeritor's consultant, BC, it was agreed that nearly all of the information that might be generated in an RFI/CS effort already existed. USEPA requested that summaries of data obtained subsequent to issuance of the 1994 RI Report be prepared and that the available data be organized by SWMU or AOC. That document, the Summary of Investigative Work (SOIW), was prepared by BC in response to that request and was transmitted to USEPA and MDEQ in July 1999.

Following the receipt of a USEPA letter dated April 11, 2000, a meeting was held on Site April 25 and 26, 2000 between representatives from Grenada Manufacturing, ArvinMeritor, MDEQ, the USEPA, and BC to discuss, among other things, an Interim Measures Work Plan and USEPA's acceptance of the SOIW in lieu of the draft RFI report. As stated in USEPA's letter, Grenada Manufacturing was also required to respond to comments on the SOIW and to revise and resubmit the SOIW as an RFI Report. Responses to comments on the SOIW were transmitted with the RFI Report. As agreed during the project meeting on April 25 and 26, transmittal of the Interim Measures Work Plan and the RFI Report (revised SOIW) were completed under separate schedules so that additional groundwater sampling and analyses could be performed as part of the implementation of the IM Work Plan. Once USEPA and MDEQ approval was received for the IM

Work Plan, field activities were performed and additional data were incorporated into the RFI Report, which was issued as revised Final in October 2001.

An evaluation of IMs for groundwater migration control was performed according to the IM Work Plan. In its letter to the USEPA dated March 9, 2001, BC presented the results of the focused IM evaluation. The evaluation considered three in-situ treatment technologies: a permeable reactive barrier (i.e., zero valence iron), an air sparging curtain, and enhanced bioremediation. After evaluation of these technologies as applied to Site-specific information, installation of a permeable reactive barrier (PRB) was recommended as the IM for groundwater migration control. Subsequently, BC submitted a Design Basis Report for the PRB to the USEPA and MDEQ for review on May 18, 2001. This Design Basis Report describes the scope of the design effort, a summary of the relevant Site conditions, the performance requirements of the PRB, and the design criteria.

The groundwater IM that has been proposed consists of installation of a PRB (see Figure 1-3 for the proposed location of the PRB). This IM has been proposed to address the overall Site groundwater contamination, since a large portion of the Site's groundwater is currently impacted by TCE and its degradation products. Additionally, there is a significant portion of the Site where chromium impacts groundwater. Groundwater at the Site appears to discharge primarily directly to Riverdale Creek. Potential impact to the creek appears to be limited to TCE and its degradation products. Groundwater may also enter the Outfall Ditch (SWMU 7), which discharges to Riverdale Creek. Impact to Riverdale Creek due to discharge of groundwater containing TCE and its degradation products has been identified as an environmental condition that could significantly benefit from implementation of the PRB as an IM.

The PRB is being designed to be capable of controlling impact to Riverdale Creek. When the PRB is installed, then the potential environmental impact from source areas, as well as the Site-wide plume, will be controlled. The CMS will consider additional source area treatment or removal activities that may provide a measurable benefit by improving the quality of groundwater reaching the PRB so that the efficacy of the PRB is improved or extended.

4.0 IDENTIFICATION AND EVALUATION OF CORRECTIVE MEASURES TECHNOLOGIES

This section of the Work Plan presents an overview of the source control measures and migration control measures that will be considered in the CMS. A description is also presented for the process and criteria to be used to evaluate corrective measures technologies during the CMS.

4.1 SOURCE CONTROL MEASURES

Source control measures will be evaluated as part of the CMS. The evaluation will focus, for example, on source control measures that may improve the life of the PRB. NAPL recovery activities at AOC A (Former TCE Storage Area) and AOC B (Former Toluene UST Area) will be re-evaluated as part of the study. The CMS will evaluate the additional data to help focus on additional source control activities that may be necessary. Consideration will be given to continuing current operations, modification of the existing systems, and potentially discontinuing recovery operations if it is determined that recovery is no longer meeting objectives given the amounts of NAPL being recovered.

SWMU 15 (Process Sewers) and SWMU 27 (Chrome Plating Area), including potential air releases from these areas of the plant, will be further evaluated as part of the CMS. The CMS will consider additional data collected since completion of the RFI to help focus any additional source control activities that may be necessary. Any such activities will likely be incorporated into and implemented as part of an overall or long-term change in operations to be decided by Grenada Manufacturing.

4.2 MIGRATION CONTROL MEASURES

Potentially applicable groundwater migration control measures are those that minimize impacted groundwater from entering Riverdale Creek or those that could remove or destroy constituents of concern so that groundwater entering the creek does not exceed cleanup concentration goals for each constituent. Based on available data, the groundwater constituents that are currently impacting the creek are TCE and its daughter products cis-1,2-dichloroethene (cis-DCE) and vinyl chloride

(VC). The proposed installation of a PRB is expected to achieve migration control for these constituents that are impacting Riverdale Creek.

The CMS will consider other technologies that may be added to those already in place or planned (i.e., the PRB). These technologies will be evaluated to determine their potential to significantly improve migration control of TCE and its degradation products from reaching Riverdale Creek.

4.3 TECHNOLOGY EVALUATION

Appendix C of the facility HSWA permit lists the general guidelines and criteria to be used for identification, screening, and evaluating technologies during the CMS. The CMS Report will present a list and description of the applicable technologies for each of the affected media at the Site. A table or figure will be presented which summarizes this information. The corrective measures technologies will be screened to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objectives within a reasonable time period. The technologies that pass this screening step will be assembled into specific alternatives that have the potential to meet the corrective measure objectives for each media. These alternatives will be listed and briefly described in the CMS Report.

Appendix C of the facility HSWA permit lists the following criteria to be used in a more detailed evaluation of the alternatives:

- Protect human health and the environment.
- Attain media cleanup standards.
- Control the source of releases so as to reduce or eliminate, to the extent practicable, further releases that may pose a threat to human health and the environment.
- Comply with applicable standards for management of wastes.

Other factors or criteria that may be used to evaluate the alternatives include:

- long-term reliability and effectiveness
- reduction in the toxicity, mobility or volume of wastes
- short-term effectiveness
- implementability
- cost

Selection of one or more of the technologies will be based on the Site-specific conditions. Compatibility with other technologies that are ongoing or proposed at the Site also is a critical factor in selecting an alternative. For example, if an interim measure (such as the PRB) is based on reduction of TCE to ethene, it will be problematic to select as a corrective action alternative a technology upgradient of the barrier that is based on oxidation because such activity would increase the dissolved oxygen content of the groundwater passing through the PRB thereby artificially reducing the effectiveness of the iron. For this reason, the evaluation process must consider ongoing and proposed interim measures. For this Site, we have anticipated that following implementation and testing of the PRB as a migration control system, it may be beneficial to apply a technology upgradient, most likely in one or more source areas, that is synergistic with the barrier. An example would be a technology that uses introduction of an electron donor to address the plume upgradient of the barrier. Thus, groundwater reaching the barrier would have a lower oxidation/reduction potential, as well as lower concentrations of constituents. Subsequently, the PRB might perform better and/or last longer.

5.0 IMPLEMENTATION OF CORRECTIVE MEASURES STUDY

This section presents an overview of the plan for implementation of the CMS including a proposed schedule and an example format for the CMS Report.

5.1 PROPOSED SCHEDULE FOR CMS IMPLEMENTATION

Figure 5-1 presents the proposed schedule for implementation of the CMS. Several assumptions have been made for this schedule:

- USEPA approval of this CMS Work Plan will be received within 30 days after submission of the Plan to USEPA,
- USEPA review of and comment on the draft CMS Report will require 30 days, and
- Final CMS Report will be submitted within 30 days after receipt of final comments from the USEPA.

5.2 PROPOSED OUTLINE FOR CMS REPORT

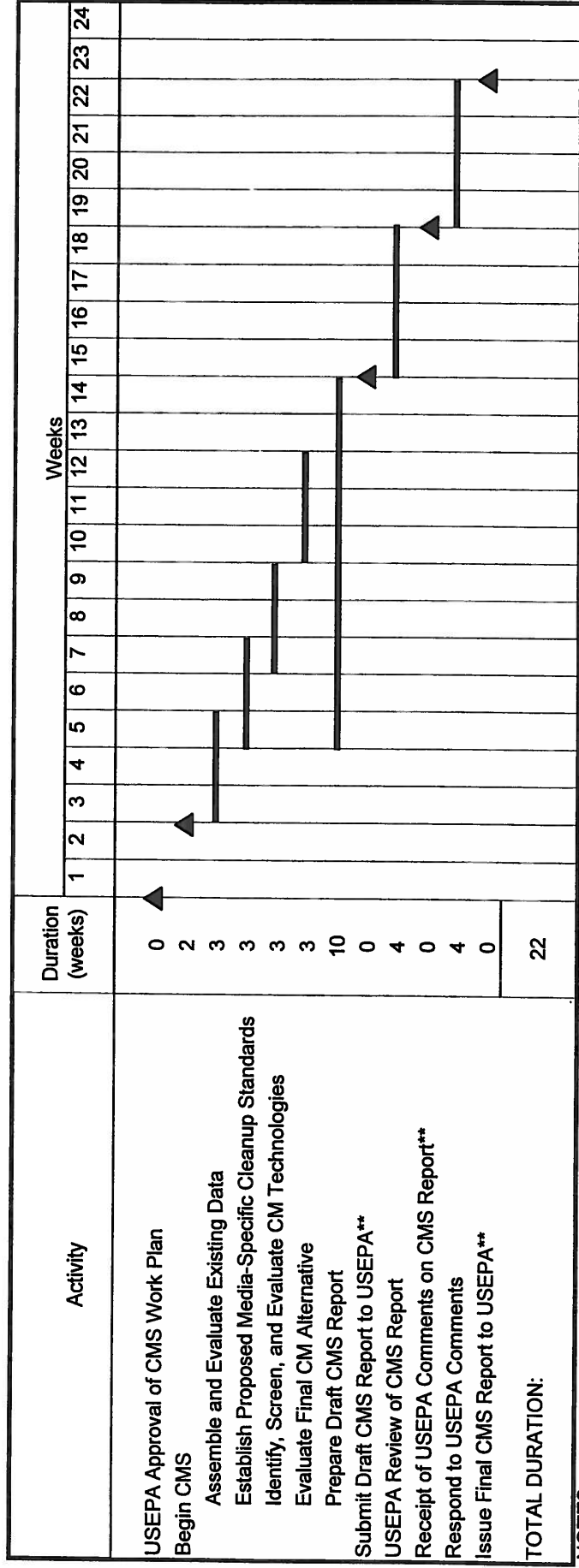
Table 5-1 presents the proposed outline for the CMS Report. This outline may be modified somewhat as the CMS Report is prepared; however, the CMS Report will contain the information required in Appendix C of the HSWA permit for the facility.

5.3 PROJECT ORGANIZATION AND MANAGEMENT

Mr. John Bozick is the Project Manager for ArvinMeritor. Mr. Bozick has the overall responsibility for coordinating work activities at the Site; interfacing with Grenada Manufacturing and the BC Project Manager; and communicating with the USEPA and MDEQ.

BC has been retained by ArvinMeritor to conduct the Corrective Measures Study. The BC Project Manager, Dale R. Showers, P.E., will be responsible for coordinating technical activities and

Figure 5-1. Proposed Schedule for Corrective Measures Study Implementation
Grenada Manufacturing, LLC
Grenada, Mississippi



NOTES:

**Actual date depends on actual start date of CMS.

TABLE 5-1

EXAMPLE OUTLINE
CORRECTIVE MEASURES STUDY REPORT
GRENADA MANUFACTURING SITE
GRENADA, MISSISSIPPI

1.0	Introduction
1.1	Purpose
1.2	Description of Current Situation
1.3	Establishment of Proposed Media Specific Cleanup Objectives
1.4	Continued Groundwater Sampling.....
1.5	Additional Groundwater Sampling.....
1.6	Continued NAPL Recovery.....
1.7	Shutdown of Chrome Plate Line
2.0	Identification and Development of Corrective Measures Technologies
2.1	Identification.....
2.2	Corrective Measures Development
3.0	Evaluation of Corrective Measures Technologies
3.1	Protection of Human Health and the Environment.....
3.2	Attainment of Media Cleanup Standards.....
3.3	Control of Sources of Releases
3.4	Compliance with Applicable Standards for Management of Wastes.....
3.5	Other Factors
3.5.1	Long-Term Reliability and Effectiveness.....
3.5.2	Reduction in the Toxicity, Mobility, or Volume of Wastes.....
3.5.3	Short-Term Effectiveness.....
3.5.4	Implementability
3.5.5	Cost.....
4.0	Justification and Recommendation of Corrective Measures
5.0	Implementation Schedule

directing BC personnel on the project, and will be the primary BC contact. Robert E. Ash, IV, P.E., of BC will act as the Principal-in-Charge with responsibility for the overall quality of the work. Project related activities will be managed by Mr. Showers from the BC Nashville, Tennessee office. BC personnel will be responsible for the establishment and monitoring of schedules, coordination of field activities, managing data, and performance of subcontractors. BC personnel will interface with subcontractors, laboratory and project personnel, and inform the Project Manager of all activities.

5.4 DOCUMENT CONTROL

Project documents will be controlled through an organized project filing system. Project and task numbers will be printed on each document. Analytical/technical files will include work products generated during the project. Field books, field observations, photographs, and other field related documents will be prepared and will also be placed in the project files. Laboratory sample results will be controlled, reviewed, and validated as defined in the Quality Assurance Project Plan (QAPP), dated November 2000. Original incoming documents will be date-stamped upon arrival and will be placed in the files.

5.5 DATA MANAGEMENT

Data received from the field, analytical laboratories, subcontractors, or private sources will be tabulated on a spreadsheet or database and will be subjected to quality control procedures, including comparing raw data to the original source, verifying calculations, and confirming data summaries. Data distribution will not occur until data review has been completed. Maps or drawings created using the data will be subjected to the review process.

Work products will be checked before final use. This includes checking calculations, reports, plans, etc. with various levels of review. The Project Manager will be responsible for the review of work as an element of his project responsibilities. The Principal-In-Charge is responsible for the overall quality of the work. One or more discipline-specific Technical Directors may be assigned by the Project Manager to provide specific technical expertise, such as knowledge regarding a type of remedial technology. Further, assignments may be made outside the project team, as needed, for

quality control purposes. For example, we may utilize personnel experienced in the monitoring and evaluation of natural attenuation data.

5.6 PUBLIC INVOLVEMENT PLAN

Throughout the CMS process, Grenada Manufacturing and ArvinMeritor will assist the USEPA and the MDEQ with public involvement as needed.

APPENDIX A

SOLID WASTE MANAGEMENT UNIT SUMMARY FROM HSWA PERMIT

APPENDIX A

SOLID WASTE MANAGEMENT UNIT SUMMARY

A.1. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring a RCRA Facility Investigation (RFI).				
SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment	Dates of Operation	Potentially Affected Media ¹
SWMU 2	Equalization Lagoon	Surface Impoundment	1961-1994	A, SS, SW, GW, S
SWMU 3	On-Site Landfill	Landfill	1961-1967	A, SS, SW, GW, S
SWMU 4	Sludge Lagoon	Surface Impoundment	1977-Present	A, SS, SW, GW, S
SWMU 7	Outfall Ditch	Ditch	1961-Present	A, SS, SW, GW, S
SWMU 12	Wet Well	Inground Tank	1977-Present	A, SS, SW, GW, S
SWMU 14	Destruct Pit	Chromium Reduction Unit/ Holding Sump	1961-Present	A, SS, SW, GW, S
AOC A	Former TCE Storage Area	Contamination Area	≈1973-Present	A, SS, SW, GW, S
AOC B	Former Toluene UST Area	Contamination Area	Late 1960s- Present	A, SS, SW, GW, S

¹Potentially Affected Media:

A - Air

SS- Subsurface Gas

SW - Surface Water

GW - Ground Water

S - Soil

A.2. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring no further action at this time:

SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA	Dates of Operation	Potentially Affected Media ¹
SWMU 1	Less Than 90-day Drum Storage Area	Container Storage Area	Mid 1980s-Present	NA
SWMU 5	Former Solid Waste Incinerators	Incinerators	1961-1996	NA
SWMU 6	Equipment Laydown	Laydown Area	1961-Present	NA
SWMU 8	Former Burn Area	Burn Area	1961-Approx. 1974	NA
SWMU 9	Sumps A, B, & C ²	Sumps	1961-Present	NA
SWMU 10	Waste Oil Tank	Above-ground Storage Tank	1970s-Present	NA
SWMU 11	Waste Oil Catch Pans	Catch Pans	Approx. 1961- Present	NA
SWMU 16	Drainage Ditches	Ditches	1961-Present	NA
SWMU 17	Former IDW Drum Storage Area	Drum Storage Area	Early 1992-1993	NA
SWMU 18	Buffing Sludge Basement	Storage Basement	1961-Present	NA
SWMU 19	Buffing Sludge Rolloff	Rolloff Container	1985-Present	A, SS, SW, GW,S
* Unit Regulated by State Permit				

A.2. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring a no further action at this time (continued):

SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment	Dates of Operation	Potentially Affected Media ¹
SWMU 20	Plant Waste Containers	Hoppers and Drums	1961-Present	NA
SWMU 21	Parts Washers	Parts Washers	Jan. 1990-Present	NA
SWMU 22	Cyclone Dust	Air Emissions Control	Approx 1960 - Present	NA
SWMU 23	Biohazard Container	Container	1960s-Present	NA
SWMU 24	Satellite Accumulation Areas A ₂ , B ₂ , C ₂ , D ₂ & E ³	Satellite Accumulation Drums	Approx 1976 - Present	NA
SWMU 25	Scrap Metal Rolloffs	Rolloff Containers	1960s-Present	NA
SWMU 26	Trash Compactor	Compactor	1996-Present	NA

¹ Potentially Affected Media:

A - Air
 SS- Subsurface Gas
 SW - Surface Water
 GW - Ground Water
 S - Soil
 NA - Not Applicable

² Sumps A, B & C are defined as follows

A Waste Oil Sump
 B Main Waste Oil Sump
 C Verson Press Waste Oil Sump

³ Satellite Accumulation Areas A, B, C, D & E are defined as follows:

A Toluene Recovery Drum
 B Waste Toluene Drum
 C Spent Paint Filter Drum
 D Waste Paint Rags Drum
 E TCE Recovery Drum

A.3. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring Confirmatory Sampling:				
SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment	Dates of Operation	Potentially Affected Media
SWMU 13	Wastewater Treatment Plant	Treatment Plant	1977-Present	A, SS, SW, GW, S
SWMU 15	Process Sewers	Sewer System	1961-Present	A, SS, SW, GW, S
AOC C	Fuel Tank Farm Containment Area	Secondary Containment	1960s-Present	A, SS, SW, GW, S

¹Potentially Affected Media:

A - Air

SS- Subsurface Gas

SW - Surface Water

GW - Ground Water

S - Soil

APPENDIX B

COMPLIANCE SCHEDULE FROM HSWA PERMIT (APPENDIX D – SCHEDULE OF COMPLIANCE)

Schedule of Compliance	Due Date
Notification of Newly Identified SWMUs and AOCs <i>Condition II.B.1. and Condition II.B.2.</i>	Within fifteen (15) calendar days of discovery
SWMU Assessment Report <i>Condition II.B.3.</i>	Within ninety (90) calendar days of notification
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs <i>Condition II.C.1.</i>	Within fifteen (15) calendar days of discovery
Confirmatory Sampling Work Plan for SWMUs or AOCs identified in Appendix A.3 <i>Condition II.D.1</i>	Within forty-five (45) calendar days of notification by the Regional Administrator
Confirmatory Sampling Work Plan for SWMUs identified under Condition II.B.4. or AOCs identified under Condition II.B.1. <i>Condition II.D.2.</i>	Within forty-five (45) calendar days of notification by the Regional Administrator
Confirmatory Sampling Report <i>Condition II.D.5.</i>	In accordance with the approved CS Work Plan
RFI Work Plan for SWMU(s) and AOC(s) identified under Condition II.A.1. <i>Condition II.E.1.a.</i>	Within ninety (90) calendar days of notification by the Regional Administrator
RFI Work Plan for SWMU(s) and AOC(s) Identified under Condition II.B.4., Condition II.C.2., or Condition II.D.6. <i>Condition II.E.1.b.</i>	Within ninety (90) calendar days after receipt of notification by Regional Administrator (RA) which SWMUs or AOCs require an RFI
Draft RFI Report <i>Condition II.E.3.a.</i>	In accordance with the approved RFI Work Plan

Schedule of Compliance	Due Date
Final RFI Report <i>Condition II.E.3.c.</i>	Within thirty (30) calendar days after receipt of RA's final comments on Draft RFI Report
RFI Progress Reports <i>Condition II.E.3.d.</i>	Quarterly, beginning ninety (90) calendar days from the start date specified by the RA *
Interim Measures Work Plan <i>Condition II.F.1.a.</i>	Within thirty (30) calendar days of notification by RA
Interim Measures Progress Reports <i>Condition II.F.3.a.</i>	In accordance with the approved Interim Measures Work Plan ** or semi-annually for Permittee initiated IM
Interim Measures Report <i>Condition II.F.3.b.</i>	Within ninety (90) calendar days of completion
CMS Work Plan <i>Condition II.G.1.a.</i>	Within ninety (90) calendar days of notification by RA that a CMS is required
Implementation of CMS Work Plan <i>Condition II.G.2.</i>	Within fifteen (15) calendar days after receipt of RA approval of Plan
Draft CMS Report <i>Condition II.G.3.a.</i>	In accordance with the schedule in the approved CMS Work Plan
Final CMS Report <i>Condition II.G.3.a.</i>	Within thirty (30) calendar days of RA's final comments on Draft CMS Report
Demonstration of Financial Assurance <i>Condition II.H.3.</i>	Within one hundred twenty (120) calendar days after permit modification for remedy

Schedule of Compliance	Due Date
Noncompliance/Imminent Hazard Report <i>Condition I.D.14.</i>	Oral within 24 hours and written within fifteen (15) calendar days of becoming aware of the hazardous circumstances
Complete installation of emission control technology for units identified under <i>Condition IV.A.3.</i>	By "Installation Due Date" under Condition IV.A.3.
Written report of noncompliance of tanks, surface impoundments or containers with 40 CFR §§ 264.1082(c)(1) or (c)(2) <i>Condition IV.D.1.</i>	Within fifteen (15) calendar days of becoming aware of noncompliance
Written report of noncompliance of tanks with 40 CFR §§ 264.1084(c)(1) or (c)(2) <i>Condition IV.D.2.</i>	Within fifteen (15) calendar days of becoming aware of noncompliance
Semi-Annual Report for Use of Control Devices 40 CFR § 264.1090(c) <i>Condition IV.D.3.***</i>	Semi-annually, beginning six (6) months from the effective date of the permit*
<p>The above reports must be signed and certified in accordance with 40 CFR §270.11.</p> <p>* This applies to Work Plan execution that requires more than one hundred eighty (180) calendar days</p> <p>** This applies to Work Plan execution that requires more than one year.</p> <p>*** Semi-annual report is not required if provisions of Condition IV.D.4. are met</p>	